

Message Text

UNCLASSIFIED

PAGE 01 DUSSEL 00231 051530Z

73

ACTION OES-05

INFO OCT-01 EUR-12 ISO-00 FEA-01 AID-05 CEQ-01 CIAE-00

COA-01 COME-00 DODE-00 EB-07 EPA-04 INR-07 IO-10 L-02

NSF-02 NSC-05 NSAE-00 PM-03 SS-15 SP-02 AGR-10 INT-05

PA-02 PRS-01 USIA-15 /116 W
----- 029022

R 041500Z MAR 75

FM AMCONSUL DUSSELDORF

TO SECSTATE WASHDC 2534

INFO AMEMBASSY BONN

UNCLAS DUSSELDORF 0231

E.O. 11652: N/A

TAGS: SENV, ENRG, GW

SUBJECT: USE OF POWER PLANT WASTE HEAT TO STIMULATE CROPS

BEGIN SUMMARY:

1. HERBERT LUCKOW, A DIRECTOR OF THE GIANT STEEL CONCERN AUGUST THYSEN HUETTE AG, IS DIRECTING EXPERIMENTS ON THE FEASIBILITY OF USING WASTE HEAT FROM THERMAL POWER PLANTS TO STIMULATE THE GROWTH OF CROPS. HE WISHES TO MAKE CONTACT WITH INSTITUTIONS IN THE UNITED STATES THAT ARE CONDUCTING OR PLANNING EXPERIMENTS ON AGRICULTURAL USES OF WASTE HEAT FOR THE PURPOSE OF COORDINATING RESEARCH EFFORTS AND AVOIDING DUPLICATION. LUCKOW PLANS TO TRAVEL TO THE UNITED STATES IN JUNE AND WOULD LIKE TO RECEIVE THE NAMES AND ADDRESSES OF PEOPLE WITH WHOM HE CAN DISCUSS HIS PROJECT BY THE END OF APRIL. THE CONSULATE GENERAL WOULD APPRECIATE ANY ASSISTANCE THAT THE DEPARTMENT CAN GIVE LUCKOW, A VALUABLE CONTACT, IN THIS MATTER.
END SUMMARY.

2. IN EXPERIMENTS UNDER LUCKOW'S DIRECTION, PLASTIC PIPES WITH WARM WATER (30 DEGREE C.) HAVE BEEN LAID IN ROWS DEEP ENOUGH UNDERGROUND TO BE SAFE FROM PLOWS AND OTHER AGRICULTURAL
UNCLASSIFIED

UNCLASSIFIED

PAGE 02 DUSSEL 00231 051530Z

IMPLEMENTS AND AT AN INTERVAL OF ONE METER. THE YIELDS

OF CORN, WHEAT AND HAY ON THE EXPERIMENTAL FIELDS WERE UP
TO 60 PERCENT HIGHER THAN ON CONTROL FIELDS THAT WERE NOT HEATED.

3. BECAUSE OF ENVIRONMENTAL CONCERNS, NEW THERMAL POWER PLANTS
ARE GENERALLY NOT PERMITTED TO DISCHARGE WARM WATER DIRECTLY
INTO RIVERS HERE. LUCKOW PROPOSES USING THE WATER TO STIMULATE
CROP GROWTH AS SPECIFIED ABOVE. THE SYSTEM WOULD BE A CLOSED
ONE WITH THE WATER FLOWING BACK TO THE POWER PLANT AFTER COOLING.
IT WOULD COST NO MORE THAN A COOLING TOWER (ACCORDING TO LUCKOW)
WOULD IMPROVE THE EFFICIENCY OF THE POWER PLANT AND WOULD BE
FRIENDLIER TO THE ENVIRONMENT. THE POSSIBILITY OF INCREASING
YIELDS INDEPENDENT OF THE WEATHER WOULD BE AN INDUCEMENT TO FARMERS
TO AGREE TO HAVING A POWER PLANT LOCATED IN THEIR VICINITY.
THE FEDERAL GERMAN RESEARCH MINISTRY FOUND THE PROJECT
INTERESTING ENOUGH TO GRANT LUCKOW DM 12 MILLION TO CONTINUE
HIS RESEARCH.

4. LUCKOW IS IN CORRESPONDENCE WITH PROFESSOR BOERSMA OF OREGON
STATE UNIVERSITY, WHO HAS PUBLISHED STUDIES ON THE AGRICULTURAL
USE OF WASTE HEAT. LUCKOW IS INFORMED THAT THE TENNESSEE VALLEY
AUTHORITY ALSO IS EXPERIMENTING IN THIS FIELD. THE CONSULATE
GENERAL ASSUMES THAT THE ENVIRONMENTAL PROTECTION AGENCY,
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION, FEDERAL
ENERGY AGENCY, NATIONAL SCIENCE FOUNDATION, COUNCIL ON
ENVIRONMENTAL QUALITY, AND DEPARTMENTS OF AGRICULTURE AND INTERIOR
AMONG GOVERNMENT AGENCIES, WOULD HAVE AN INTEREST IN THIS
PROJECT AS WOULD SOME OF THE MAJOR UTILITIES AND THE FIRMS THAT
BUILD LARGE THERMAL POWER PLANTS. HENNEMEYER

UNCLASSIFIED

NNN

Message Attributes

Automatic Decaptioning: X
Capture Date: 01 JAN 1994
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: WASTE DISPOSAL, AGRICULTURAL PRODUCTION, INDUSTRIAL PLANTS
Control Number: n/a
Copy: SINGLE
Draft Date: 04 MAR 1975
Decaption Date: 01 JAN 1960
Decaption Note:
Disposition Action: n/a
Disposition Approved on Date:
Disposition Authority: n/a
Disposition Case Number: n/a
Disposition Comment:
Disposition Date: 01 JAN 1960
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1975DUSSEL00231
Document Source: CORE
Document Unique ID: 00
Drafter: n/a
Enclosure: n/a
Executive Order: N/A
Errors: N/A
Film Number: D750077-0633
From: DUSSELDORF
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1975/newtext/t19750386/aaaacyzd.tel
Line Count: 89
Locator: TEXT ON-LINE, ON MICROFILM
Office: ACTION OES
Original Classification: UNCLASSIFIED
Original Handling Restrictions: n/a
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 2
Previous Channel Indicators: n/a
Previous Classification: n/a
Previous Handling Restrictions: n/a
Reference: n/a
Review Action: RELEASED, APPROVED
Review Authority: CollinP0
Review Comment: n/a
Review Content Flags:
Review Date: 23 MAY 2003
Review Event:
Review Exemptions: n/a
Review History: RELEASED <23 MAY 2003 by SilvaL0>; APPROVED <20 FEB 2004 by CollinP0>
Review Markings:

Margaret P. Grafeld
Declassified/Released
US Department of State
EO Systematic Review
05 JUL 2006

Review Media Identifier:
Review Referrals: n/a
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
Secure: OPEN
Status: NATIVE
Subject: USE OF POWER PLANT WASTE HEAT TO STIMULATE CROPS BEGIN SUMMARY
TAGS: SENV, ENRG, GE
To: STATE
Type: TE
Markings: Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 05 JUL 2006